

State of New Mexico ENVIRONMENT DEPARTMENT

Construction Programs Bureau
1190 St. Francis Drive, P.O. Box 26110
Santa Fe, New Mexico 87502-6110
http://www.nmenv.state.nm.us/cpb/cpbtop.html



SECRETARY
RICK MARTINEZ

ASD DIRECTOR

May 18, 2005

Lorrie McKnight, Village Manager Village of Ruidoso 313 Cree Meadows Drive Ruidoso, NM 88345

John Waters, City Administrator City of Ruidoso Downs P.O. Box 348 Ruidoso Downs, NM 88346

RE: Village of Ruidoso and City of Ruidoso Downs

Review of Draft Preliminary Engineering Report for

Wastewater Treatment Plant Improvements

Ms. McKnight and Mr. Waters:

The New Mexico Environment Department (NMED), Construction Programs Bureau (CPB) received the draft Preliminary Engineering Report (PER) for the above referenced project on April 25, 2005. The PER complied with the format and content requirements outlined in RUS Bulletin 1780-3 and provided adequate information regarding the scope and need for the project and correctly identified alternatives for the wastewater treatment plant improvements.

Please note that CPB is consulting with Mr. Robert Gott of the Water Utilities Technical Assistance Program (WUTAP) for their technical knowledge. Any comments Mr. Gott may have will need to be addressed in addition to the following. Please submit in writing how the following issues will be resolved.

- 1. Report must be stamped, signed, and dated by a registered professional engineer.
- 2. Environmental Resources Present, Page 2-6: According to the PER, the environmental resources will be identified in the environmental information document. When will this be ready for review?
- 3. Project History, Page 3-8: The NPDES permit expiration date is incorrect on Table 3-2. According to appendix B, the NPDES permit expires on 8-31-05, not 2007 as referenced on the table. Please verify and correct.
- 4. Influent and RAS Pump Replacement, Page 6-5: Back-up emergency power for the pump stations should be considered in case of a power failure.

- 5. Will either of the two recommended alternatives, Biological nutrient Removal (BNR) or Simultaneous Nitrification & Denitrification process require a higher level of operator than what the Village/City currently has?
- 6. The PER should identify all sources of funding and how the Village/City will pay for the proposed \$23 million wastewater treatment plant improvements.
- 7. PER should also identify how the average cost per connection per month for sewer service would be affected with the proposed improvements.

The attached PER checklist is for your review.

Should you have any questions or comments please do not hesitate to contact me at 505-827-2812.

Sincerely,

Stephanie DuBois

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Project Manager

cc:

Cleatus Richards, 313 Cree Meadows Drive, Ruidoso, NM 88345
Rajen Patel, USEPA Region 6 Project Manager, 1445 Ross Ave., Suite 1200, Dallas, TX 75202-2733
Robert Gott, WUTAP, 1300 Lusia Street, Suite 7, Santa Fe, NM 87502
Del Archuleta PE, Molzen Corbin, 2701 Miles Rd. SE, Albuquerque, NM 87111
Steve Baumgarn, Surface Water Bureau, 1190 St. Francis Dr., Santa Fe, NM 87502
Andrew Edmondson PE, NMED CPB

NEW MEXICO ENVIRONMENT DEPARTMENT CONSTRUCTION PROGRAMS BUREAU PRELIMINARY ENGINEERING REPORT (PER) EVALUATION CHECKLIST WASTEWATER REPORT PER RUS BULLETIN 1780-3

Project Name: Village of Ruidoso & City of Ruidoso Downs

Project Number: STAG FY 2002

& FY 2005, JGTRRA 03-T-026

PER Prepared by (Company): Molzen Corbin

P.E.: Del Archuleta

Project Manager: Stephanie DuBois

Date: May 18, 2005

ITEM	Y, N, N/A	COMMENT
I. GENERAL IN Provide a brief introduction regarding the nature of		
A. Is the report stamped by the PE in responsible charge per Section 61-23-21 NMSA 1978 and 16.39.3.12 NMAC?	N	Report needs to be stamped, signed, and dated by a registered professional engineer as per Section 61-23-21 NMSA 1978 and 16.39.3.12 NMAC?
B. Is an overview of the proposed project and background provided?	Y	
II. PROJECT PL Describe the area under consideration for the proposed p	ANNING ARI	EA.
A. Location - Are there maps, photographs, and sketches that indicate legal and natural boundaries, major obstacles, elevations, etc. included as needed to describe the planning area? Are the planning area and planning period specifically defined?	Y	
B. Environmental Resources Present - Is information provided on the location and significance of important land resources (farmland, rangeland, forestland, wetlands, and 100/500 year floodplains, including stream crossings), historic sites, endangered species/critical habitat, etc., that must be considered in project planning? (Can be addressed in EID)	N	Page 2-6: According to the PER, the environmental resources will be identified in the EID, which is to be included under Appendix A.

ITEM	Y, N, N/A	COMMENT
C. Growth Areas and Population Trends - Are specific areas of growth identified? Are population projections for the project planning area and concentrated growth areas provided for the project design period? Are projections based on historical records with justification from recognized sources?	Y	
III. EXISTING Describe the existing facilities including at least the follow		}
A. Location Map - Is a schematic layout and general service area map provided? It may be identified on planning map (II.A)	Y	
B. History - Is information provided on the history of the existing facility?	Y	Page 3-8: The NPDES Permit expiration date is incorrect on Table 3-2. According to appendix B, the NPDES permit expires on 8-31-05, not 2007 as shown on the table.
C. Condition of Facilities - Does the report describe present condition, suitability for continued use, adequacy of current facilities, and if any existing central facilities, the treatment, storage, and disposal capabilities? Does the report describe compliance with the Clean Water Act and applicable Federal, State, and local requirements and current permits?	Y	
D. Financial Status of any Operating Central Facilities - Is information provided regarding rate schedules, annual operating and maintenance (O&M) cost, number of connections, tabulation of users by monthly usage categories, and revenue received for the last three fiscal years? Is the status of existing debts and required reserve accounts presented?	Y	
IV. NEED FOR 'Describe the need in the following order of priority.	THE PROJEC	СТ
A. Health and Safety - Does the report describe concerns and include relevant regulations and correspondence from/to Federal and State regulatory agencies? Has the NMED Ground and Surface Water Bureaus been contacted for an assessment and their opinion of the proposed project?	Y	Need to comply with NPDES permit.
B. System O&M - Does the report describe the concerns and indicate those with the greatest impact? Before adding additional capacity, has infiltration/inflow,	Y	

ITEM	Y, N, N/A	COMMENT
management adequacy, inefficient designs, and problem elimination been investigated?		
C. Growth - Does the report describe the reasonable growth capacity that is necessary to meet needs during the planning period? Are facilities proposed to be constructed to meet future growth needs supported by additional revenues? Were phased capacity increases considered? Are the number of new customers committed to the project listed?	Y	
D. Other Needs - Are other needs, such as wastewater reuse, flat or hilly topography, pending changes in effluent limits, sludge management, and redundancy considered?	Y	
V. ALTERNATIVE This section should contain a description of the reasonabl solution to meet the identified needs, including a "No Acti	e alternatives i	that were considered in planning a
A. Design Criteria - Are the design parameters or basis of design used for evaluation purposes stated? Do the design parameters take into consideration PERMIT LIMITS , best engineering practice and applicable Federal and State Regulations such as WEF, ADA, and the Water Quality Regulations? Are explanations provided for assumptions or choices outside of New Mexico Guidelines? Are all the needs identified in Part IV, such as I/I and sludge management, addressed and justified?	Y	
B. Description - Are all reasonable alternatives considered? Are the facilities associated with the alternative described? Are all feasible wastewater treatment technologies and a comparison of such technologies provided? Are the collection facilities described? Note a feasible alternative may be a combination of central facilities and management of onsite facilities or only the later.	Y	
C. Map - Is a schematic layout provided?	Y	

ITEM	Y, N, N/A	COMMENT
D. Environmental Impacts - (The report need not duplicate information provided as a separate environmental review.) Does the report describe unique direct and indirect impacts on floodplains wetlands, endangered species, cultural resources, etc. as they relate to a specific alternative?	N	Report does not provide any information as to the impacts on wetlands, endangered species, or cultural resources. However, page 2-6 states that an Environmental Information Document will be developed and will address these issues.
E. Land Requirements - Is the land needed for sites and easements identified? Does the report describe how the land will be acquired, ie permits, purchase, easement? Does the report note any difficulties that may be encountered such as an EIS to access Federal lands.	Y	-
F. Construction Problems - Are potential problems, such as subsurface rock, high water table, limited access that may affect the cost of construction or operation of the facilities identified? Will the project disturb more than 5 ac and require a SWPPP?	Y	
G. Cost Estimates - Do cost estimates include: 1. Construction costs? 2. Non-construction (such as ROW) and other projects? 3. Annual Operation and Maintenance? 4. Present Worth based on Federal discount rates? Are the alternatives compared on an apples-to-apples basis? Are sources for prices and assumptions clearly explained? (These can be placed in an appendix) Are the results summarized in a table for easy reference?	Y	
H. Advantages/Disadvantages - Does the report describe the specific alternative's ability to meet the owner's needs and basis for design within its financial and operational resources, comply with regulatory requirements, compatible with existing comprehensive area-wide development plans, and satisfy public and environmental concerns? Is a matrix display used?	Y	

VI. PROPOSED PROJECT (RECOMMENDED ALTERNATIVE)

This section should contain a fully developed description of the proposed project based on the preliminary description under the evaluation of alternatives. At least the following information should be included.

ITEM	Y, N, N/A	COMMENT
A. Project Design		
1. Treatment - Has a detailed description of the process (including process flow diagram) and the site location been provided? Are process discharges and necessary permits described? Does the treatment process have a history of meeting the applicable permit limits?	Y	
2. Pumping Stations - Are size, type, site location, and any special power requirements (including backup power) identified?	Y	Pump stations should be wired to hook up a generator to provide back-up power in case of power failure. A time sequence should be generated in case of an emergency.
3. Collection System Layout - Are the general location of improvements: lengths, sizes, and key components identified?	N/A	
4. Hydraulic Calculations - Are calculations provided in sufficient detail in a tabular format to determine compliance with generally accepted engineering practice and applicable regulation? Do the calculations support the conclusions and recommendations?	Y	
B. Cost Estimate - Is an itemized estimate of the project cost based on the anticipated period of construction provided? Does the estimate include development and construction, land and ROW, legal, engineering, interest, equipment, contingencies, gross receipt tax, and other costs associated with the proposed project? (Separate water and wastewater estimates)	Y	
C. Annual Operating Budget		
1. Income - Is a rate schedule provided? Is income projected realistically, based on user billings and other sources of income? Are the numbers based on the number of dwelling units? Is wastewater production based on historical data or an assumption? Is the assumption explained and is it reasonable?	Y	Report should state how the average cost per connection per month would be affected with the proposed wastewater system improvements.
2. Operation and Maintenance -Are the cost projections realistic? Are they based on actual data or costs for similar existing facilities. Does the report include facts to substantiate O&M cost	Y	

Y, N, N/A	COMMENT
Y	
N	Report should identify all sources of funding and how the Village and City will pay for the proposed \$23 million wastewater system improvements.
Y	
	NDATIONS nsidered in development of the project. d for special coordination, a
Y	
Y	
Y	***************************************
N/A	
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